CENTRO DE INVESTIGAÇÃO INTERDISCIPLINAR EGAS MONIZ

A snapshot of the quality of therapy in nursing homes

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Introduction

The ageing process often leads to the development of numerous comorbidities which, consequently, are treated resorting to polypharmacy. The sharp increase in ageing index witnessed in Portugal for the past decade is a cause of major concern. In various countries, new pharmacist services have been emerging to tackle this problem, namely medication review. However, in Portugal, this service is not routinely provided, nor in the outpatient setting, neither in nursing homes. Therefore, this study aimed to analyse the quality of therapy in elderly nursing homes residents, by determining the prevalence of drug-related problems (DRP), and to conclude if there are missed opportunities for pharmacists.

Methods

Ethical approval

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Invitation of 4 nursing homes (n=224)

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Elegibility criteria: aged ≥65 and using ≥5 medicines

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Cross-sectional study with clinical and therapeutic data collected from patient records

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Medication review using explicit and implicit criteria[1-4]

Detection of DRP (n=126), Potentially Inappropriate Medicines (PIMs) (n=161) and Potential Prescribing Omissions (n=126)

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Detected problems prioritized and reported to physicians, suggesting therapy changes

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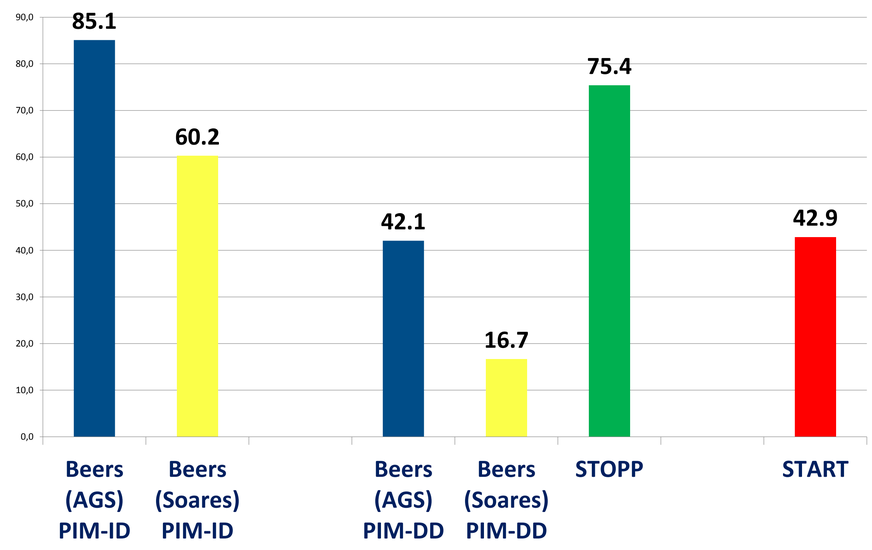
Data analysis (Uni and bivariate statistics in IBM SPSS 21.0). CI 95%

Results

Figure 1: Prevalence of PIMs and PPOs



Potentially Inappropriate Medication (PIMs, Beers and STOPP criteria)

- Benzodiazepines (long and short-acting), antipsychotics and laxatives
- Benzodiazepines (short-acting), 1st gen antiH2 and muscle relaxants
- Duplicate drug classes (benzodiazepines, antidepressants and laxatives), CNS drugs and drugs afecting the fallers

Potential Prescribing Omissions (PPOs, START criteria)
Absence of antiplatet therapy (endocrine system) and statin therapy (endocrine and cardiovascular systems)
Absence of biphosphonates and calcium and vitamin D (musculoskeletal system)

Flowchart 1: Pharmacist intervention and acceptance rate

Identified at baseline

1030 DRP identified
Manifest DRP (31.8%)
Quantitative Ineffectiveness (40.0%).
Quantitative unsafety (13.3%)
Potential DRP (100.0%)

Pharmacist intervention

584 DRP reported
(56.7%) to prescribers.

Therapy changes suggested for 62 patients

Physician's Decision

- No feedback (n=34; 54.8%)
- Feedback (n=28; 45.2%)
- Approved (n=10; 35.7%)

Conclusions

The application of explicit criteria in an elderly sample enabled the identification of a considerable number of PIMs. The most commonly detected drugs as PIMs can lead to falls and fractures and nearly half of the sample with PIMs were indeed patients with history of fractures. It would be interesting to evaluate if these have occurred in the following year. Applying implicit criteria also revealed vast opportunities to improve safety and effectiveness of medicines, suggesting there are opportunities for pharmacists' intervention in nursing homes. For these to attain maximum benefit, additional efforts must be put on multiprofessional collaboration to diminish the absence of feedback to reports.

References

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